

## CLAIMS

We claim:

1        1. A weather system for use in providing weather information to consumers over  
2        the Internet and having a tool for use by consumers in interacting with the weather system,  
3        the tool comprising:

4              a first component for allowing a consumer to input a desired request and specify what  
5        the consumer seeks from the weather system, with the what being selected from a group  
6        comprising obtaining weather information and obtaining planning information;  
7              a second component for allowing consumers to specify where the desired request  
8        should be directed, with the where allowing the consumer to specify a geographical region;  
9              wherein the first and second components of the tool allow the consumer to tailor the  
10      desired request so that the consumer receives weather information associated with the  
11      geographical region or to tailor the desired request so that the consumer receives planning  
12      information associated with the geographical region.

1        2. The system as set forth in claim 1, wherein the first component is a drop-down  
2        menu of options of items in the group from which the consumer can select.

1        3. The system as set forth in claim 1, wherein a default item in the group is  
2        obtaining a local weather forecast.

1           4.     The system as set forth in claim 1, wherein the second component includes a  
2     text box which accepts text from the consumer for specifying the desired geographical  
3     region.

1           5.     The system as set forth in claim 1, wherein the tool organizes geographical  
2     regions hierarchically.

1           6.     The system as set forth in claim 1, wherein the planning information available  
2     through the tool includes planning information on an activity.

1           7.     A weather system for use in providing weather information to consumers over  
2     the Internet and having a temporal navigator tool for use by consumers in interacting with the  
3     weather system, the tool comprising:

4                 a plurality of first elements for being displayed to consumers, each of the first  
5     elements for displaying weather information during a different segment of time within a  
6     longer period of time;

7                 a set of the plurality of first elements being combined and presented to the consumer  
8     as a group; and

9                 a plurality of second elements with each of the second elements associated with a  
10    respective one of the first elements and for displaying additional information beyond the  
11    weather information available through the first element, the additional information displayed  
12    through the second elements is for the same segment of time as weather information  
13    available through the corresponding first elements;

14           wherein the consumer obtains the additional information contained in a desired  
15       second element upon selecting the associated first element.

1           8.       The system as set forth in claim 7, wherein each of the first elements displays  
2       weather information for a day.

1           9.       The system as set forth in claim 7, wherein the set of first elements displayed  
2       to consumers is less than all of the first elements.

1           10.      The system as set forth in claim 7, wherein the temporal navigation tool  
2       further includes links to first elements that are not part of the set of first elements.

1           11.      The tool as set forth in claim 7, wherein the additional information displayed  
2       through the second elements comprises more detailed weather information for the segment of  
3       time.

1           12.      A weather system for use in providing weather information to consumers over  
2       the Internet and having a map section for use by consumers in interacting with the weather  
3       system, the map section comprising:

4           a map navigator tool for use in displaying a weather map, the map navigator tool  
5       allowing consumers to access maps in a same collection of weather maps as a displayed  
6       weather map; and

7           a map selector for displaying categories of weather maps, with each category of  
8       weather maps including plural collections of weather maps;  
9           wherein consumers can navigate between maps within a desired collection of weather  
10      maps through the map navigator tool and can select a desired category of weather maps and  
11      the desired collection of weather maps through the map selector.

1           13.     The system as set forth in claim 12, wherein the map navigator tool further  
2       permits consumers to navigate between a family of weather maps related to the displayed  
3       weather map.

1           14.     The system as set forth in claim 13, wherein the family of maps includes  
2       different sized maps of the displayed weather map.

1           15.     The system as set forth in claim 13, wherein the family of maps includes the  
2       displayed map in motion and a static view of the displayed map.

1           16.     The system as set forth in claim 12, wherein at least one of the weather maps  
2       is in more than one collection of weather maps.

1           17.     The system as set forth in claim 12, wherein at least one of the weather maps  
2       is in more than one category of weather maps.

1           18.     The system as set forth in claim 12, wherein the map navigator tools has a  
2 drop-down menu of the weather maps in the same collection.

1           19.     A weather system for use in providing weather information to consumers over  
2 the Internet, the system employing a navigational architecture having:  
3                 a weather page for a geographical region; and  
4                 a set of pages contextually-related to each other and associated with the geographical  
5 region;  
6                 the weather page including links to each one of the contextually-related pages; and  
7                 the set of contextually-related pages containing links to both the weather page and  
8 also to all other contextually-related pages;  
9                 the weather page and the set of contextually-related pages being arranged in a hub-  
10 and-spoke fashion with the weather page being a hub and the set of contextually-related  
11 pages being spokes;  
12                 wherein from any one of the contextually-related pages or from the weather page,  
13 consumers can navigate directly to all other contextually-related pages or to the weather  
14 page.

1           20.     The system as set forth in claim 19, wherein the contextually-related set of  
2 pages are related activities for the geographical region.

1           21.     The system as set forth in claim 19, wherein the weather page includes a local  
2 forecast for the geographical region.

1           22.     The system as set forth in claim 19, wherein contextually-related set of pages  
2 contain content for the geographical region.

1           23.     A weather system for use in providing weather information to consumers over  
2 the Internet, comprising:

3                 weather data for a plurality of geographical regions;  
4                 planning information for the geographical regions, the planning information  
5 containing data on at least one activity for multiple geographical regions;  
6                 mixed weather-planning data associated with the data on each activity for each of the  
7 multiple regions, the mixed weather-planning data providing a rating of each activity for  
8 each geographical based on the weather data for that geographical region; and  
9                 the system providing the mixed weather-planning data to consumers in conjunction  
10 with the planning information;

11                 wherein the rating can be used by consumers in evaluating the activities at the  
12 multiple geographical regions and also in ranking the activities between the geographical  
13 regions based on the weather.

1           24.     The system as set forth in claim 23, wherein the weather data used in  
2 formulating the mixed weather-planning data for one activity comprises a sub-set of weather  
3 data that may have an effect on the one activity.

1        25.    The system as set forth in claim 24, wherein the one activity is golf, the mixed  
2 weather-planning data comprises a golf index, and the sub-set of weather data includes  
3 temperature, lighting strikes, wind conditions, and precipitation.

1        26.    The system as set forth in claim 23, wherein the system displays to consumers  
2 each of the weather data, planning information, and the mixed weather-planning data on a  
3 single page.

1        27.    The system as set forth in claim 23, further comprising a locator for allowing  
2 consumers to search for activities within different geographical regions.

1        28.    A method of providing weather data and planning information to a consumer  
2 over the Internet, comprising:  
3            obtaining weather data for a plurality of geographical regions;  
4            obtaining planning information for the geographical regions, the planning information  
5 containing data on at least one activity for multiple geographical regions;  
6            receiving a request from the consumer over the Internet, the request specifying an  
7 activity and a certain geographical region;  
8            obtaining mixed weather-planning data associated with the activity and the certain  
9 geographical region, the mixed weather-planning data rating each activity for each  
10 geographical based on the weather data for that geographical region;  
11          providing planning information for the activity to the consumer; and  
12          providing the mixed weather-planning data to the consumer through the Internet;

13           wherein the rating can be used by consumers in evaluating the activity at the certain  
14       geographical region based on the weather.

1           29.     The method as set forth in claim 28, wherein obtaining the mixed weather-  
2       planning data comprises deriving the mixed weather-planning data in response to the  
3       consumer's request.

1           30.     The method as set forth in claim 28, wherein obtaining the mixed weather-  
2       planning data comprises storing the mixed weather-planning data for a plurality of activities  
3       and a plurality of geographical regions.

1           31.     The method as set forth in claim 28, wherein receiving the request from the  
2       consumer comprises receiving an indication of what activity the consumer wants to do and  
3       an indication of where the consumer wants to do the activity.

1           32.     The method as set forth in claim 28, wherein receiving the request from the  
2       consumer comprises providing the consumer with a local weather page with links for  
3       planning different activities and the request is a selection of one of those links.

1           33.     The method as set forth in claim 28, wherein obtaining the mixed weather-  
2       planning data to the consumer comprises selecting a sub-set of the weather data that may  
3       have an effect on the activity and deriving the rating from the sub-set of the weather data.

1           34.     The method as set forth in claim 28, wherein obtaining the mixed weather-  
2 planning data comprises obtaining an index of the activity based on the weather conditions.

1           35.     A system for providing weather information to consumers over the Internet,  
2 the system presenting an interface comprising:  
3                 a banner section for providing some identification of the system;  
4                 a global navigation section designating a series of headings representing different  
5 categories of information available through the weather system, each of the heading being  
6 associated with a pop-up menu of sub-headings from which a consumer can select;  
7                 a main content section comprising a plurality of components and having a plurality of  
8 tabs associated with different types of content available through the system, consumers being  
9 able to navigate to a desired type of content by selecting a corresponding one of the tabs;  
10                a footer section for use in providing non-weather information to consumers;  
11                wherein consumers can navigate through information available through the system by  
12 selecting any one of the headings, sub-headings, and tabs.

1           36.     The system as set forth in claim 35, wherein the interface further includes a  
2 section for displaying advertisements to consumers.

1           37.     The system as set forth in claim 36, wherein the section for displaying  
2 advertisements is contained within the main content section.

1       38.   The system as set forth in claim 36, wherein the section for displaying  
2 advertisements is separate from the main content section.

1       39.   The system as set forth in claim 35, further comprising a navigational tool for  
2 allowing consumers to specify what type of information they want from the system and to  
3 associate a geographical region with the type of information they want.

1       40.   The system as set forth in claim 35, wherein the main content section includes  
2 an activities component for allowing consumers to obtain information on the activities.

1       41.   The system as set forth in claim 35, further comprising a weather alert section  
2 for displaying weather alerts associated with a selected geographical region.

1       42.   The system as set forth in claim 35, wherein one of the tabs comprises a  
2 climatology tab permitting consumers to obtain climatology information on a selected  
3 geographical region for a desired period of time.

1       42.   A system for providing weather information to consumers over the Internet,  
2 comprising:  
3           a database;  
4           a parser for receiving weather data, for parsing the weather data, and for storing  
5           parsed weather data in the database;  
6           a data access layer for controlling retrieval of the weather data from the database;

7           an application layer containing business rules for determining a desired set of weather  
8        data to be retrieved from the database in response to a consumer's request and for requesting  
9        the desired set of weather data from the data access layer;  
10          a presentation layer for receiving the desired set of weather data from the application  
11        layer and controlling a look and feel of the desired set of weather data to be provided to the  
12        consumer in response to the consumer's request; and  
13          a control layer for receiving the consumer's request and for managing a flow of data  
14        between the application layer and the presentation layer.

1           43.     The system as set forth in claim 42, further comprising an advertisement  
2        system for selecting an advertisement to be delivered in response to the consumer's request.

1           44.     The system as set forth in claim 42, further comprising at least one data feed  
2        for receiving the weather data.

1           45.     The system as set forth in claim 42, further comprising a web server for  
2        receiving the consumer's request over the Internet and for forwarding the request to the  
3        control layer.

1           46.     The system as set forth in claim 42, wherein information delivered in response  
2        to the consumer's request is separated into a plurality of presentation components and the  
3        presentation layers involves use of presentation beans having the business logic to determine  
4        the data to be retrieved for a corresponding presentation component.

1        47.     The system as set forth in claim 46, wherein at least one of the presentation  
2     beans is for obtaining an advertisement to be delivered in one of the presentation components  
3     in response to the consumer's request.

1        48.     The system as set forth in claim 46, wherein the data layer involves use of data  
2     beans for retrieving data identified by the presentation beans.

1        49.     The system as set forth in claim 48, wherein the data layer further involves use  
2     of a data bean cache for storing certain of the data beans.

1        50.     A method of delivering weather information over the Internet in response to a  
2     request from a consumer for weather information, comprising:  
3              receiving weather data from at least one weather feed;  
4              parsing the weather data and storing parsed weather data in a database;  
5              receiving the consumer's request over the Internet;  
6              determining a set of presentation components that will form a response to the  
7     consumer's request;  
8              determining a set of presentation beans required to select information contained in the  
9     presentation components;  
10             acquiring data beans for retrieving the information selected by the presentation beans,  
11     the data beans for retrieving at least the requested weather information from the database;

12 building the presentation components from the data selected by the presentation beans  
13 and retrieved by the data beans;  
14 assembling the response based on the presentation components built; and  
15 forwarding the response to the consumer through the Internet, whereby the consumer  
16 receives the requested weather information as part of the response.

1 51. The method as set forth in claim 50, wherein determining the set of  
2 presentation components includes determining an advertisement bean for selecting an  
3 advertisement to be delivered as part of the response to the consumer.

1 52. The method as set forth in claim 50, further including determining static  
2 fragments for some of the presentation components.

1 53. The method as set forth in claim 50, further comprising executing scripts to  
2 provide dynamic data for some of the presentation components.

1 54. The method as set forth in claim 50, wherein determining the set of  
2 presentation components includes determining multiple presentation beans for some of the  
3 presentation components.

1 55. The method as set forth in claim 50, further comprising selecting a language  
2 for the response.

1           56. A method of permitting navigation through a weather site on the Internet,  
2 comprising:  
3           allowing a consumer to select from any one or a combination of a plurality of  
4 navigational modes available at the weather site, the navigation modes including at least two  
5 from the group comprising:  
6           navigating through a geographical architecture provided by the weather site in  
7 which weather information is arranged in a hierarchical manner;  
8           navigating through a categorical architecture in which weather information is  
9 grouped by category;  
10          navigating through a contextual architecture in which information is organized  
11 into contextually-related groups of pages;  
12          navigating through a temporal architecture in which information is interrelated  
13 chronologically;  
14          receiving a first request from the consumer through one of the navigation modes, the  
15 request including a first constraint for allowing the consumer to move within a selected one  
16 of the architectures;  
17          delivering a first set of information to the consumer in response to the request and the  
18 first constraint;  
19          permitting the consumer to switch to a second navigation mode;  
20          receiving a second request from the consumer through the second navigation mode,  
21 the second request including a second constraint for allowing the consumer to move within  
22 the second architecture; and  
23          delivering a second of information to the consumer in response to the second request;

24           wherein the second set of information delivered to the consumer is selected based on  
25       both the first constraint and the second constraint.

1           57.     The method as set forth in claim 56, wherein receiving the first request is  
2       through the geographical architecture, the first constraint is a geographical region, the second  
3       request is through the contextual architecture, and the second constraint is an activity and  
4       wherein delivering the second set of information comprises delivering information on the  
5       activity within the geographical region.

1           58.     The method as set forth in claim 56, wherein receiving the first request is  
2       through the geographical architecture, the first constraint is a geographical region, the second  
3       request is through the categorical architecture, and the second constraint is a type of weather  
4       data and wherein delivering the second set of information comprises delivering the type of  
5       weather data for the geographical region.

1           59.     The method as set forth in claim 56, wherein receiving the first request is  
2       through the geographical architecture, the first constraint is a geographical region, the second  
3       request is through the categorical architecture, and the second constraint is a category of data  
4       and wherein delivering the second set of information comprises delivering the category of  
5       data associated with the geographical region.

1           60.     The method as set forth in claim 56, wherein receiving the first request is  
2       through the categorical architecture, the first constraint is a category of data, the second

3 request is through the temporal architecture, and the second constraint is a time period and  
4 wherein delivering the second set of information comprises delivering information on the  
5 category of data for the time period.

1        61.      The method as set forth in claim 56, wherein receiving the first request is  
2 through the categorical architecture, the first constraint is a category of data, the second  
3 request is through the geographical architecture, and the second constraint is a geographical  
4 region and wherein delivering the second set of information comprises delivering the  
5 category of information associated with the geographical region.

1        62.      The method as set forth in claim 56, wherein receiving the first request is  
2 through the contextual architecture, the first constraint is an activity , the second request is  
3 through the geographical architecture, and the second constraint is a geographical region and  
4 wherein delivering the second set of information comprises delivering information on the  
5 activity for the geographical region.

1        63.      The method as set forth in claim 56, wherein receiving the first request is  
2 through the contextual architecture, the first constraint is an activity, the second request is  
3 through the temporal architecture, and the second constraint is a period of time and wherein  
4 delivering the second set of information comprises delivering information on the activity for  
5 the period of time.